HyperVoxel Basics
And
Cheap Fog

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For LightWave 3D 8.0
HyperVoxels

• Good
  – Quick Eye candy
  – Easy to setup
  – HIGH detail

• Bad
  – Longer render times for volumes
    • Smoke
    • Fire
  – Takes a bit of tweaking to look just right
  – Makes surfaces bigger
Uses of HyperVoxels

• Landscapes (good stuff)
• Water (ripples)
• Smoke & Fire
• Space Nebulas
• Rocks
• Most things with rough textures
• If using surfaces, best done so on LOW poly surfaces
Once you have set the basic look you are going for, then you can play with the different options that can tweak the preset to your liking.

I recommend using surfaces for solid volumes such as fluids, things with really rough textures, and the like.

NOTE: Be careful when applying 'hypervoxels' to a surface with more then one polygon. You will have to increase the particle size. However, this will make the object seem much bigger when you do so.
Only renders the surface of the volume

Created using Rock Preset (Surface)
Renders everything inside the volume

Billow (Volume)
Only renders a slice that faces the camera all the time.

Sand Explosion (Sprite)
Quick Ground Cover Fog

- Easy to do
- Looks better than Supplied Fog system
- Creates fog patches
- Can also create thin cloud cover by changing the thickness setting
- Change the particle size to a large size.
- Change the stretch direction to Y and increase the stretch amount a bit. This will give the fog some height.
- Turn this on to see the boundaries the fog will have.
Good settings to start with:

- Make sure it is sprite for patch fog, use volume for thin cloud cover.
- Change color here if a gradient is used; the bottom color is the innermost in the volume, and the top color is the outermost color.
- Number of Slices affects quality, 1 being the lowest, 7 the highest.
procedural texture used changes how fog will look

engine used to generate volume changes how fog will look

can just leave these how they are

increasing this will lower the amount surrounding the clumps of fog
Only the Beginning…

- There is much more to hypervoxels
- More tricks that can be done with them
- Can also create fake volumetric lighting
- Quick and good looking
References

- Essential LightWave 3D 7.5, Timothy Albee